Report to the Special Committee On House of Assembly Matters

A Visual Electronic Hansard System for the Nova Scotia House of Assembly

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submitted by
Hon. Arthur Donahoe, Q.C., M.L.A.
Speaker

April 3, 1990

90-07180/

1. Introduction

As Chairman of the Special Committee on House of Assembly Matters, I am pleased to report on the installation of a visual electronic Hansard system for the Nova Scotia House of Assembly.

The preparation of this report follows a motion passed by the Special Committee on December 19,1989 :

> "The Special Committee on House Of Assembly Matters recommends the installation in the House of Assembly of a visual electronic Hansard to record the proceedings of the House of Assembly and directs the Chairman of this Special Committee to negotiate with the television networks to determine the feasibility of installing in the House of Assembly a visual electronic Hansard system modelled upon the corporate structure, procedure, methodology and financing of the visual electronic Hansard now in place in Westminster, London, England."

It is arranged under the following headings :

Summary

Ownership & Administration

Proposed Guidelines

Financial Considerations

The Physical Installation

Timetable for Implementation

Appendices

- Guidelines
- Schedule of Estimated Capital Costs
- Schedule of Estimated Operating Costs
- Assessment by Lighting Consultant

I propose the Committee adopt this report, and use it as the basis with which to recommend to the House of Assembly that a visual electronic Hansard system be installed in the Nova Scotia Legislature.

2. Summary

A system to provide televised proceedings of the House can be installed in a way which provides a professional signal at a reasonable cost, and which addresses the needs and wishes of Members.

- **The system would be funded entirely by the House and operate exclusively under its control.** Nova Scotia television stations (CBHT, ATV/ASN, MITV) have refused to contribute to the capital costs of the system. Metropolitan area cable systems also were invited to discuss the feasibility of joint funding, but declined to participate. The principal benefit of assuming all costs is retaining complete control of the installation and its operation.

- **The business of the House can be properly portrayed within a pre-determined set of production guidelines.** Rules of coverage have been developed to provide an assurance of fairness and equality in the pictures to be shown.

- **The installation would respect the architectural integrity of the Chamber and the comfort of Members.** The cosmetic alterations required can be made in a way which is consistent with the character of the Chamber. A special system of "cool" lighting can be used to provide sufficient light levels without an appreciable increase in generated heat.

- **Total capital costs would be as low as approximately $300,000.** The total value of capital expenditures required is approximately $750,000, but arrangements can be made to rent the required television equipment under contract, thereby reducing the capital costs to $298,100. Estimates for the architectural, mechanical, and electrical renovations required have been provided by the Department of Government Services; those for the recommended lighting system and television equipment have been obtained from suppliers.

- **The system could be fully operational by February 1991.** The installation would be completed in time for complete trials before the anticipated opening of the next sitting.

3. Ownership & Administration

A joint structure, which would have shared the financial and operating responsibility for the system between the House and a collaboration of Nova Scotia television companies, was examined in response to the Committee's motion of 19 December 1989.

Under this arrangement the House would have assumed the responsibility for the costs of creating the required *physical environment* to accommodate the introduction of a television system, along with any costs incurred in co-ordinating activities associated with the installation. The combined television companies would have assumed responsibility for providing the required *television equipment*. The two groups, namely the House and the collaborating television companies, consequently would have shared the on-going administrative responsibilities through a Board of Management which would have given each group equal voting representation. This is the same ownership, administrative and cost-sharing structure used at Westminster.

Representatives of CBC, ATV/ASN, and MITV, together with those from metropolitan area CATV companies, were invited to discuss the joint structure at a meeting on 26 January 1990. The meeting was attended by management and technical representatives of the three broadcast stations. Those invited from the CATV companies declined to attend. During the meeting each of the television spokespersons stated that their company was unwilling to contribute to any capital funding of the project.

Given this response an alternative structure was developed with all the costs to be assumed by the House. It is this plan which is now proposed. The system would be operated by Hansard and administered by a special committee of the Legislature, to be called The Special Committee on Televised Proceedings. The Committee would be composed of six Members of the House, including the Speaker as Chairman.

The principal benefit of this structure is that by assuming all costs, the House would be the sole owner of the system, and would have complete control of its nature and operation.

4. Proposed Guidelines

A complete set of proposed guidelines for the successful introduction of the system is attached as Appendix A.

They include provisions for the administrative structure, the technical installation, and for the rules of coverage.

Those pertaining to rules of coverage have been developed in order to provide a systematic approach in portraying the business of the House. The rules will govern the director and camera operators in the selection of shots to be used, and will assure that principles of balance, accuracy, and fairness are applied at all times.

The guidelines may be reviewed and modified in light of experience.

5. Financial Considerations

The objective of achieving a professional signal at a modest cost has received considerable attention. The goal has been to arrive at a practical installation, which neither is elaborate nor compromises the quality of the result.

With this perspective, care has been exercised in developing realistic cost estimates for both projected capital and operating expenses. Those most knowledgeable with each particular item involved have been consulted directly. In every case preliminary "ballpark" estimates have been refined on the basis of detailed review. The resulting cost estimates for both capital and operating items are included for your review.

Capital Costs

There are two distinct categories of capital expenditures involved in the installation of the system :

A. **Physical Environment** -- items of a permanent nature which have a bearing on the integrity of the Chamber, such as architectural, mechanical, electrical and lighting renovations.

B. **Television Equipment** -- solely associated with producing and recording television pictures which are of a professional standard.

In the "joint structure" of ownership and administration originally examined for this report, item B) would have been borne by the collaborating television companies, with item A) assumed by the House -- consistent with the sub-division used at Westminster. With the television companies declining to participate, item B) must be provided by the House.

Costs for A) have been developed by the Department of Government Services. Those for B) are based on prices provided by suppliers. A detailed capital budget is included as Appendix B, summarized as follows :

A.	Physical Environment	$ 298,100
B.	Television Equipment	$ 450,603
	TOTAL	$ 748,703

The total capital costs would be significantly reduced by renting the television equipment package provided in B) under an operating

lease. This would mean only item A) would need to be capitalized, lowering the capital cost to $298,100, shown in Appendix B as Scenario 2. The reduction would be offset by an increase in the projected annual operating budget, as rental charges would be applied yearly.

Operating Costs

As previously indicated, the system would be operated by Hansard as an incremental activity; accordingly the projected operating budget is for incremental costs.

The Hansard office estimates the television operation would require three additional people on a casual contract basis, together with 400 hours of tape stock for recording the proceedings of the House and the Committee On Supply. The additional people would be hired as casual employees under contract for a period of five months, allowing sufficient time at either end of a typical sitting for alterations/modifications.

Other yearly expenses provide for the replacement of lighting fixtures, operating parts/supplies, and for a service contract. In the first year an allowance has been provided for start-up expenses, including project co-ordination, staff training, and system trials. A contingency for unforeseen expenses of 10% has been included. Detailed operating budgets for the first two years are included as Appendix C.

With the television equipment capitalized, the budget shows incremental operating costs to be approximately $60,000 in the first year, and $75,000/year thereafter. With the television equipment rented annually, under "Scenario 2", the operating costs correspondingly are approximately $155,000 in the first year, and approximately $200,000/year thereafter.

User Charges

It is anticipated that others will want to have access to the signal, primarily for educational, programming and news purposes. As the copyright in the signal will be vested in the House, a formula for user charges may be assessed for this access.

6. The Physical Installation

A control room area would be constructed in the current library annex area adjacent to the second floor stair well. This area would accommodate the bulk of the technology associated with the installation, including the monitoring, switching, and recording equipment. A computer interface would assist the operations staff with shot selection by automatically moving each camera to a pre-programmed position which corresponds to the seating plan.

Inside the Chamber, three small cameras would be in fixed positions and operated by remote-control. One camera would be mounted on each side of the House, most likely on the interior molding for the east and west doors to the Chamber. The third would be mounted directly over the main entrance.

The cameras recommended entail CCD technology, which substitutes conventional tubes with computer chips. This allows the reproduction of high quality images at lower light levels than required by previous tube-model cameras. It is of passing interest to note that this CCD technology, which has become an industry standard world-wide for both home and professional video cameras, was originally invented at Bell Labs by Dr. Willard Boyle, a Nova Scotian who has since retired to Cumberland County.

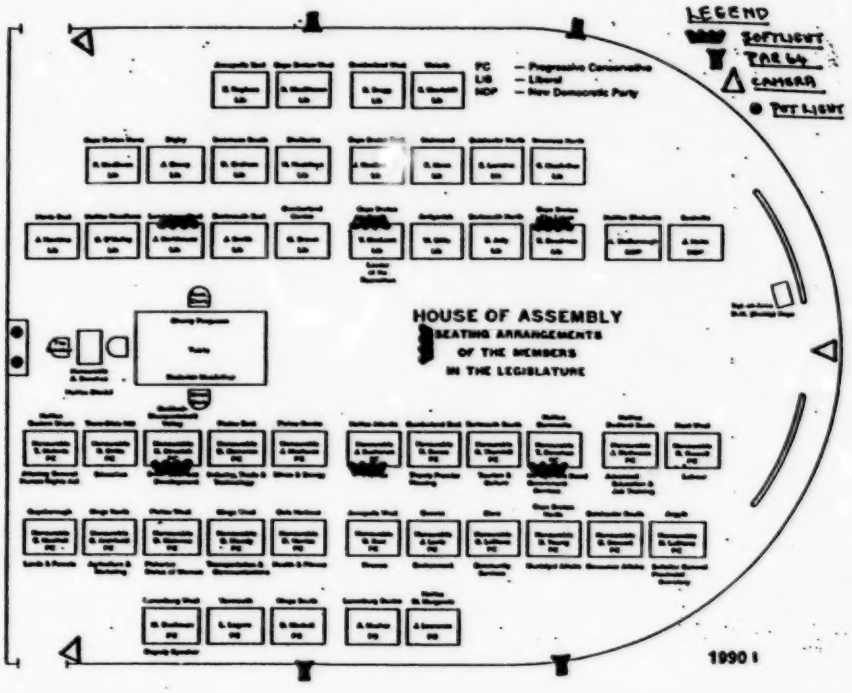
A major consideration has been the amount and characteristics of any additional lighting required inside the Chamber. Insufficient light would yield an unacceptable picture, improper placement would produce dark shadows under Members' eyes (called the "raccoon effect") and inappropriate fixtures would cause a build-up of excess heat.

A professional lighting consultant, Mr. Peter Edwards of Toronto, was retained to provide guidance in these matters. Mr. Edwards is a widely recognized specialist in custom lighting design, with several credits on Canadian, American and European television networks. He was the founding Chairman - Canadian Chapter of the Society of Television Lighting Directors, and has been awarded two Emmy awards for outstanding lighting direction. His full report is attached as Appendix D.

Two possible types of lighting were compared: an incandescent system and a relatively new system called "HMI". The principal distinguishing characteristic of the HMI type is that they are "cool" lights. While more expensive than the incandescents, it was felt that the incandescent system would almost certainly necessitate an additional expenditure for an air conditioning system. The cost for air conditioning the Chamber was estimated by the Department of Government Services to be $60,000. The

HMI lights also provide greater operating efficiency and reliability. Considering all these factors, the HMI "cool lighting" system is recommended.

Mr. Edwards suggests seven principal lights be suspended from the ceiling, at approximately the same height as the existing lamps, with their housings painted the same color as the walls. These would be supplemented by four smaller lights recessed in the ceiling, and two others mounted inside the Speaker's chair. The lights would be positioned approximately as illustrated in the following diagram.



To avoid the unsatisfactory mixture of daylight and artificial light sources, he recommends curtains be placed over the upper north windows (similar to those existing on the east/west upper windows) with louvered shutters for the lower north windows. This would provide the flexibility to block daylight when the system is in operation, while preserving the ability to have natural daylight at all other times. It also will allow for air flow through the windows, as necessary.

Finally, he suggests some cosmetic changes to the Chamber in order to provide a more acceptable television picture. The wall color would be changed from the present pale green to a neutral gray (as in the Red Room) and the carpet changed to a darker green/neutral gray color. This would eliminate any possible reflection of green, considered to be inappropriate for the television rendering of face tones.

7. Timetable for Implementation

If this report receives a favourable response from the Special Committee and a motion to proceed with the system is passed by the House during the 1990 sitting, it is anticipated that all necessary work to install the system could be completed by December 1990.

This would provide for a period of trials prior to the opening of the 1991 sitting, at which time the system would be fully operational.

Appendix A

Guidelines regarding the installation of an electronic Hansard in the Nova Scotia House of Assembly :

Overview

1. The key to success of the introduction of television into the House of Assembly will be how well the compromise between the demands of television and the needs and wishes of the Members is managed.

2. The installation should be conducted with a degree of flexibility.

3. The installation will be under the control of the House.

Administrative

4. After passage of an appropriate resolution by the House of Assembly, the visual electronic Hansard system ("the system") will be supervised and regulated by a special committee of the Legislature, to be called The Special Committee on Televised Proceedings ("the Committee").

5. The Committee will be comprised of six Members of the House of Assembly. One of the Members will be the Speaker who will be the Chairman.

6. The system will be operated by Hansard.

7. The system will be in place and in good working order during all times the House is sitting, and at any other times determined by the Committee.

8. Copyright will be vested in the House. The Committee will have the right to provide the signal to television companies and to other organizations approved by the Committee.

9. The Committee will ensure Hansard complies with the rules of coverage recommended in this Report and with any agreed variation of those rules.

10. A complete archive of the televised proceedings will be maintained by Hansard.

Technical

11. Three remote controlled cameras will be installed in the Chamber. The cameras will be mounted in fixed positions within the Chamber, with one camera on each side offset toward the Speaker, and the third over the entrance of the Chamber. The two side cameras will be the main cameras depicting the activities of the House. They will be equipped to provide a head and shoulders shot of the most distant Member opposite, at one extreme, yet provide an overall view of the other side of the House, and the backs of some rows on the camera side, with a wide angle shot. The third camera will be able to show a medium shot of the Speaker, as well as the widest possible overview of the Chamber, accepting the limitation that its position will not allow showing all seats in its overall shot.

12. Any printed captions used to provide basic information will appear in a standard format.

13. The signal will be closed-captioned for the deaf.

14. There will be no devices to enable the occupant of the Chair, or the House authorities, to interrupt or delay transmission, or to override the director's selection of camera.

Rules of Coverage

15. The rules of coverage will be based on the following statement of objectives :

> "The director should seek, in close collaboration with the Committee, to give a full, balanced, fair and accurate account of the proceedings, with the aim of informing viewers about the work of the House."

16. The following guidelines which supplement the statement of objectives will apply at the start of the installation and may be modified in light of experience.

    i. The press and public galleries, the officials' and visitors' boxes, and the area behind the Speaker's Chair, not being directly related to proceedings, will not be shown, other than unavoidably as part of wide-angle shots of the Chamber.

ii. In no circumstances will close-up shots of Members' or Officers' papers be taken.

iii. The standard format for depicting a Member who has the floor will be a head and shoulders shot, not a close-up.

iv. As a matter of general practice, the director will switch to a picture of the occupant of the Speaker's Chair whenever he or she calls the House to order; this principle will be applied all the more strictly during incidents of disorder or altercations, in which case this picture will be retained until order is restored and the business of the House is resumed.

v. Subject to the preceding paragraphs, the camera will normally remain on the Member speaking until the Member has finished; and during questions the director will only show the Member asking a question and the Minister replying to it.

vi. In no circumstances are split-screen shots to be used.

vii. Panning shots will not be permitted.

viii. Deliberate misconduct designed to secure televised publicity ought not to achieve its aim.

ix. Interruptions from and demonstrations in the galleries will in no circumstances be televised. If such an incident interferes with an otherwise permissible shot, the director will cut either to a wide-angle shot of the Chamber which does not show the offending incident, or to the occupant of the Speaker's Chair.

x. On occasions of grave disorder the director will focus on the occupant of the Speaker's Chair for as long as proceedings continue, or until order has been restored. In cases of unparliamentary behavior, the director will normally focus on the occupant of the Speaker's Chair, but occasional wide-angle shots of the Chamber would be acceptable.

17. Members should exercise some tolerance whilst any initial uncertainties over the interpretation of the guidelines are resolved.

18. Television pictures of the proceedings will not be used in any light entertainment programmes or programmes designed as political satire, or in any form of advertising.

19. Members of the House, educational and charitable users may be charged a nominal fee for the retrieval and duplication of archive material. Other requests for archival material may be referred to the Speaker.

Schedule of Estimated Capital Costs

Visual Electronic Hansard System for The Nova Scotia Legislature

Scenario 1

A) Physical Environment

Custom lighting system (HMI)	98,000	
Extended electrical systems	40,000	
Carpeting	30,000	
Control room, maintenace areas	30,000	
Draperies & wall treatments	20,000	
Custom shelving, furnishings	11,500	
Cable raceways	10,000	
Electrical cut & patch	10,000	
Paint walls & ceiling areas	8,000	
Camera mounts/enclosures	7,500	
Ventilating system	5,000	
CATV installation	1,000	
Contingency @ 10%	27,100	
Sub-total : Physical Environment		**$298,100**

B) Television Equipment

Control room systems	97,800	
Remote control system	96,800	
Cameras	56,250	
Camera accessories	35,175	
Computer control system	35,000	
Character generator w/interface	28,000	
Audio systems & interface	24,250	
Contingency @ 10%	37,328	
Design, engineering & installation	40,000	
Sub-total : Television Equipment		**$450,603**

Total Capital Costs

A + B	**$748,703**

Schedule of Estimated Capital Costs

Visual Electronic Hansard System for The Nova Scotia Legislature

Scenario 2

A) Physical Environment

Custom lighting system (HMI)	98,000	
Extended electrical systems	40,000	
Carpeting	30,000	
Control room, maintenace areas	30,000	
Draperies & wall treatments	20,000	
Custom shelving, furnishings	11,500	
Cable raceways	10,000	
Electrical cut & patch	10,000	
Paint walls & ceiling areas	8,000	
Camera mounts/enclosures	7,500	
Ventilating system	5,000	
CATV installation	1,000	
Contingency @ 10%	27,100	
Sub-total : Physical Environment		**$298,100**

B) Television Equipment

Sub-total : Television Equipment	**$0**

Total Capital Costs

A + B	**$298,100**

Appendix C

Schedule of Estimated Operating Costs

Visual Electronic Hansard System for The Nova Scotia Legislature

Scenario 1

Expenses

	Fiscal 90/91	*Fiscal 91/92*
Additional Hansard personnel	9,375	37,500
Parts/supplies	3,938	15,750
Tape stock	2,000	8,000
Service contract	1,875	7,500
Start-up costs	37,500	0
Contingency @ 10%	5,469	6,875
Total expenses	**$60,156**	**$75,625**

Scenario 2

Expenses

	Fiscal 90/91	*Fiscal 91/92*
Additional Hansard personnel	9,375	37,500
Parts/supplies	3,938	15,750
Tape stock	2,000	8,000
Service contract	1,875	7,500
Start-up costs	37,500	0
Contingency @ 10%	5,469	6,875
Equipment rental*	95,100	126,800
Total expenses	**$155,256**	**$202,425**

**assumes 9 months rental in fiscal 90/91, 12 months in 91/92*

Appendix D

PROPOSAL

On Permanent Lighting for Television
at the
Nova Scotia Legislature

Prepared For:

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Submitted By:

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L3R 2W9

March 15, 1990

REPORT ON PRODUCTION LIGHTING REQUIREMENTS FOR THE NOVA SCOTIA LEGISLATURE

1.0 LIGHTING OBSERVATIONS

The space is currently lighted by ceiling mounted recessed incandescent fixtures, supplemented by suspended chandeliers and wall fixtures. It would appear that this vertical light level is approximately 10 foot candles of incident light. When mixed with diffused daylight this achieves a mixed light level of approximately 30 foot candles, depending on position in chamber, which is relative to distance from windows.

Of major concern is the mixing of two completely different light sources. Firstly, daylight has a nominal colour temperature of 5500° Kelvin (Daylight Blue) and the other is incandescent sources of 2900° Kelvin (Tungsten Amber). This results in a non-photographic mix of sources producing an unflattering video or film exposure. The sources must be compatible.

Of equal importance is the requirement to protect the integrity and asthetic appearance of the chamber. The realization , however, is that by placing television cameras and related lighting equipment into this space requires some accommodation. Therefore, it is of extreme importance that all efforts be made to lessen the impact that may occur if priority is not given to these factors.

2.0 COSMETIC IMPROVEMENTS

The observations following are concerning the cosmetic improvements required for television production. The existing

wall colour is pale green. This should be changed to a neutral gray, as in the Red Chamber.
The highly reflective green carpet should also be changed to either a less reflective, darker green or, preferably, a neutral gray colour. This would result in more pleasing face tones by eliminating any possibility of reflectance of a colour considered inappropriate.
Triple fullness curtains to be installed on upper north windows to attenuate daylight, as presently installed on east/west upper windows.
Louvered shutters required on lower north windows to essentially block daylight, but allowing for air flow through opened windows when deemed necessary.

3.0 LIGHTING IMPROVEMENTS

All exsisting incandescent lighting fittings, recessed ceiling units-chandeliers-wall fixtures should be controlled by architectural dimmers. This would increase the average life hours of the bulbs, and control the intensity of the fixtures. ie: wall lights could be dimmed to a brightness value that would be consistent with proper camera control. These wall lights would only be required to provide an asthetic luminance value, not an exposure value. Install dimmer controlled, pot type fixtures in canopy above speakers' chair. This would provide a back light to the speaker, separating the head and shoulders from the background. This light would also partially illuminate the wood background, increasing the texture of same.

4.0 LIGHTING CONCEPTS

The proposed supplementary light source to be used in the Legislative Chamber is a daylight gaseous discharge source called H.M.I. This is an acronym for:

H = HG (from Latin name of Mercury, Hydragyrum)
M = Medium Arc
I = Metal Iodides

The H.M.I. lamp is an economical light source that has found global acceptance in the motion picture and television industries, as a photographic lamp producing a spectrum of light ideally suited to film or video.

Nominal daylight colour temperature of 5600° Kelvin is considered to be average daylight.

The H.M.I. lamp has an efficiency of 86-102 lumens per watt energy, proving an obvious advantage to Tungsten at 30 lumens per watt.

The high luminous output of H.M.I. is approximately 3-4 times that of Tungsten. This produces little or no heat projected onto the area to be photographed, resulting in more comfort for Legislators.

Reduced power consumption with energy savings of 60-75% for lighting and air conditioning requirements.

Average life hours of H.M.I. lamps approximately 2½ times that of comparable Tungsten lamps. As an example:
H.M.I. @ 1200 watts = 750 hours @ 110,000 lumens
Tungsten @ 1000 watts = 300 hours @ 37,000 lumens.

It has been noted at the House of Commons in Ottawa, that the 1200 watt H.M.I. units in use have consistently outperformed the average life hours of 750, and in fact, have recorded up to twice those hours. This reduces the light output over time, but results in cost savings if this factor can be accommodated.

5.0 SUMMARY 'A'

Higher initial purchase cost of H.M.I. lighting versus Tungsten lighting.

Reduced power consumption and air conditioning loads
Higher efficiency and output
Standard daylight photographic source
Minimum amount of projected infra red, resulting in improved comfort level
Less maintenance costs due to extended lamp life hours
Standard power requirements of 120 volt 60 hz

6.0 PRIMARY PROPOSAL

The proposal is to install three 1200 watt "Raffaello" H.M.I. softlights suspended over the first row of seats on either side of the House, with one additional unit to be suspended at the south end facing the speaker.
These units would be at a determined height of approximately the same as the Chamber chandeliers. This would provide a front light incident illumination measurement of 50 foot candles, when measured to the veiwing angle of the particular main camera position.
The lamp arc tubes in these luminaires are mounted in a recessed tray, which produce an indirect and soft quality of light, with a low glare factor.
All exterior finishes of suspended luminaires, along with power feeder cables, to be painted or otherwise finished to assist in disguising same in a colour that is mutually acceptable.
Two additional 575 watt "Caravagio" H.M.I. par 64 spotlights installed behind the ceiling over the balcony rail, will provide backlighting through ceiling ports cut into ceiling on both east and west sides of Assembly Chamber.
All control ballasts and associated equipment will be located above ceiling, allowing for easy access and ease of operation.

A time elapse meter is required to be installed on the output side of the primary power distribution, to monitor the accrued hours of operation of the lighting instruments.

Total: 7-1200 watt H.M.I. softlights
4-575 watt H.M.I. par 64 spotlights

Estimated power consumption: 10,700 watts

Estimated budget price for purchase of H.M.I. type lighting equipment: $98,000.00

7.0 ALTERNATIVE PROPOSAL

To install three 4000 watt "Botticelli" Tungsten Quartz Halogen softlights suspended as previously described, on either side of House, plus one for speaker. Additional 1000 watt par 64 Tungsten Quartz Halogen spotlights required for backlights.

8.0 Summary 'B'

Lower initial purchase cost of Tungsten lighting versus H.M.I. lighting

Higher power consumption and increased air conditioning loads

Non-compatability with daylight source through windows, unless colour compensation filters are installed over windows

High output of projected infra red, which over a limited time period can cause some discomfort for Legislators

Increased maintenance costs due to requirement to replace lamp "burn outs" because of lower lamp life hours

Necessity to provide control of these lighting units via a variety of dimmers, linked to a dimmer control unit. Under no instance should these luminaires be directly energized by a switching mechanism, as this will result in dramatic bulb failures.

All power distribution to be installed as previously described

All exterior finishes of visible lighting units to be finished in a mutually acceptable colour

Total: 7-4000 watt Tungsten Q.H. softlights
4-1000 watt Tungsten Q.H. par 64 spotlights
12 channel dimmer control unit with eight 5 K.W. dimmers plus four 1 K.W. dimmers

Estimated power consumption = 32,000 watts

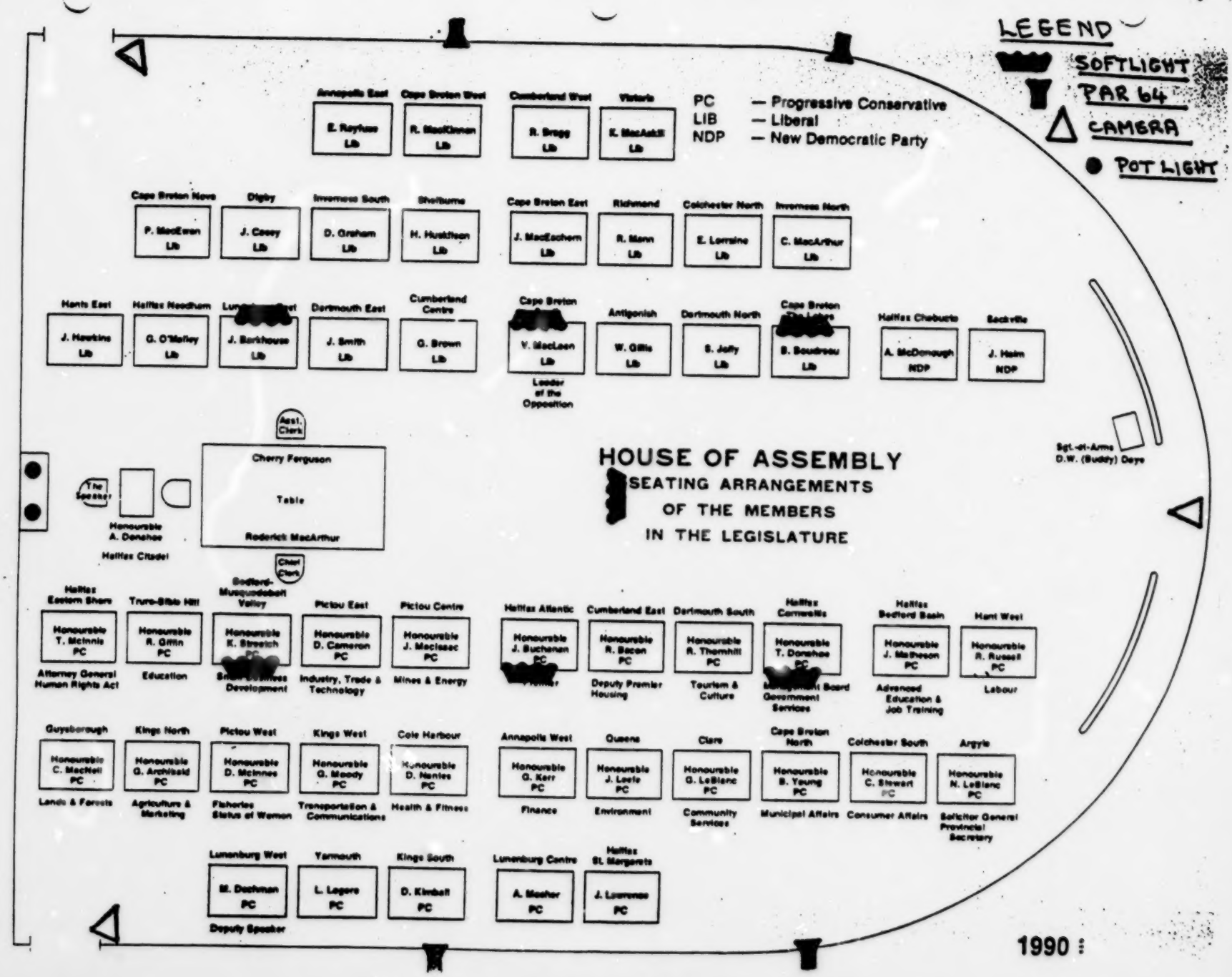
Estimated budget price for purchase of Tungsten Q.H. lighting and dimmer control equipment: $45,000.00

9.0 ADDITIONAL COMMENTS

In both of the systems described, it will be necessary to arrive at a system of suspension of the softlight units. The simplest approach might be to install a winch at each of the three locations, with a series of cables running through the ceiling. These cables could then be attached to a length of pipe with the lighting units suspended.

An additional hole in the ceiling would be required at each units location allowing the power feeder cable to be attached to each unit.

I feel confident that the Primary and Alternative Proposals fulfill the needs and requirements of lighting for television coverage of the Nova Scotia Legislature, and meet any sensibilities that might occur in introducing television equipment into the Assembly Chamber.


LEGEND
SOFTLIGHT
PAR 64
CAMERA
POT LIGHT
PC — Progressive Conservative
LIB — Liberal
NDP — New Democratic Party
HOUSE OF ASSEMBLY
SEATING ARRANGEMENTS
OF THE MEMBERS
IN THE LEGISLATURE
Annapolis East
E. Rayfuse
Lib
Cape Breton West
R. MacKinnon
Lib
Cumberland West
R. Stagg
Lib
Victoria
K. MacAskill
Lib
Cape Breton Nova
P. MacEwan
Lib
Digby
J. Casey
Lib
Inverness South
D. Graham
Lib
Shelburne
H. Huskilson
Lib
Cape Breton East
J. MacEachern
Lib
Richmond
R. Mann
Lib
Colchester North
E. Lorraine
Lib
Inverness North
C. MacArthur
Lib
Hants East
J. Hawkins
Lib
Halifax Needham
G. O'Malley
Lib
Dartmouth East
J. Smith
Lib
Cumberland Centre
G. Brown
Lib
Cape Breton
V. MacLean
Lib
Leader of the Opposition
Antigonish
W. Gillis
Lib
Dartmouth North
S. Jolly
Lib
Halifax Chebucto
A. McDonough
NDP
Sackville
J. Holm
NDP
Asst. Clerk
Cherry Ferguson
Table
Roderick MacArthur
Chief Clerk
The Speaker
Honourable
A. Donahoe
Halifax Citadel
Sgt.-at-Arms
D.W. (Buddy) Daye
Halifax Eastern Shore
Honourable
T. McInnis
PC
Attorney General
Human Rights Act
Truro-Bible Hill
Honourable
R. Giffin
PC
Education
Bedford-Musquodoboit Valley
Honourable
K. Streetch
PC
Development
Pictou East
Honourable
D. Cameron
PC
Industry, Trade & Technology
Pictou Centre
Honourable
J. Maclsaac
PC
Mines & Energy
Halifax Atlantic
Honourable
J. Buchanan
PC
Premier
Cumberland East
Honourable
R. Bacon
PC
Deputy Premier
Housing
Dartmouth South
Honourable
R. Thornhill
PC
Tourism & Culture
Halifax Cornwallis
Honourable
T. Donahoe
PC
Government Services
Halifax Bedford Basin
Honourable
J. MacPherson
PC
Advanced Education & Job Training
Hant West
Honourable
R. Russell
PC
Labour
Guysborough
Honourable
C. MacNeil
PC
Lands & Forests
Kings North
Honourable
G. Archibald
PC
Agriculture & Marketing
Pictou West
Honourable
D. McInnes
PC
Fisheries
Status of Women
Kings West
Honourable
G. Moody
PC
Transportation & Communications
Cole Harbour
Honourable
D. Nantes
PC
Health & Fitness
Annapolis West
Honourable
G. Kerr
PC
Finance
Queens
Honourable
J. Leefe
PC
Environment
Clare
Honourable
G. LeBlanc
PC
Community Services
Cape Breton North
Honourable
B. Young
PC
Municipal Affairs
Colchester South
Honourable
C. Stewart
PC
Consumer Affairs
Argyle
Honourable
N. LeBlanc
PC
Solicitor General
Provincial Secretary
Lunenburg West
M. Dauhman
PC
Deputy Speaker
Yarmouth
L. Legere
PC
Kings South
D. Kimball
PC
Lunenburg Centre
A. Mosher
PC
Halifax St. Margarets
J. Lawrence
PC
1990